buffer

(1) Comparison is required.

(2) translation of JP52550888

```
=> d his

     (FILE 'HOME' ENTERED AT 07:34:11 ON 06 DEC 2001)

     FILE 'STNGUIDE' ENTERED AT 07:34:19 ON 06 DEC 2001

     FILE 'CAPLUS' ENTERED AT 07:35:23 ON 06 DEC 2001
L1        222254 S BUFFER?
L2          2709 S OMEPRAZOLE?
L3         40090 S BICARBONATE?
L4             2 S L1(L) L2(L) L3

=> s sodium bicarbonate?
          708972 SODIUM
              29 SODIUMS
          708983 SODIUM
                 (SODIUM OR SODIUMS)
           40090 BICARBONATE?
L5          9988 SODIUM BICARBONATE?
                 (SODIUM(W)BICARBONATE?)

=> s l2(l) l5
L6             13 L2(L) L5

=> d l6 1-13 bib abs

L6   ANSWER 1 OF 13  CAPLUS  COPYRIGHT 2001 ACS
AN   2001:245261  CAPLUS
DN   135:175042
TI   A randomized, pharmacokinetic and pharmacodynamic, cross-over study of
     duodenal or jejunal administration compared to nasogastric administration
     of omeprazole suspension in patients at risk for stress ulcers
AU   Phillips, Jeffrey O.; Olsen, Keith M.; Rebuck, Jill A.; Rangnekar, Nick
     J.; Miedema, Brent W.; Metzler, Michael H.
CS   Department of Surgery, School of Medicine, University of
     Missouri-Columbia, Columbia, MO, USA
SO   Am. J. Gastroenterol. (2001), 96(2), 367-372
     CODEN: AJGAAR; ISSN: 0002-9270
PB   Elsevier Science Inc.
DT   Journal
LA   English
AB   The aim of this study was to characterize absorption and pH control of
     simplified omeprazole suspension (SOS), 2 mg/mL in 8.4%
     sodium bicarbonate, administered via the nasogastric vs.
     jejunal or duodenal route.  Nine critically ill surgical patients, NPO and
     mech. ventilated, were enrolled in this randomized cross-over study.
     Patients received a single 40 mg dose of SOS by the nasogastric and either
     the jejunal or duodenal route.  Twenty-four-hour continuous intragastric
     pH monitoring was performed during the study period.  Sequential blood
     samples were collected over 24 h to characterize SOS absorption and
     pharmacokinetic parameters.  Nasogastric administration of SOS resulted in
     lower max. mean .+-. SD serum concns. compared to jejunal/duodenal dosing
     (0.970 .+-. 0.436 vs. 1.833 .+-. 0.416 .mu.g/mL, p = 0.006).  SOS
     absorption was significantly slower when administered via nasogastric tube
     (108.3 .+-. 42.0 vs. 12.1 .+-. 7.9 min, p < 0.001).  However, all routes
     of administration resulted in similar SOS area under the serum concn.-time
     curves (AUC0.) (415.1 .+-. 291.8 vs. 396.7 .+-. 388.1 .mu.g .cntdot. h/mL,
     p = 0.91).  Mean intragastric pH values remained >4 at 1 h after SOS
     administration and remained >4 for the entire 24-h study (6.32 .+-. 1.04,
     5.57 .+-. 1.15, nasogastric vs jejunal/duodenal, p = 0.015), regardless of
     administration route.  In critically ill surgical patients,
```

pharmacokinetic parameters and subsequent pH control after the administration of SOS are similar by the jejunal, nasogastric, or duodenal route. SOS suspension offers an alternative acid control measure when patients are unable to take oral medications, yet have an enteral tube in place.

RE.CNT 27
RE
(1) Andersson, T; Br J Clin Pharmacol 1990, V29, P557 CAPLUS
(2) Andersson, T; Clin Pharmacokinet 1996, V31, P9 CAPLUS
(3) Aoki, I; J Chromatogr Biomed Appl 1991, V571, P283 CAPLUS
(4) Balaban, D; Am J Gastroenterol 1997, V92, P79 CAPLUS
(6) DiGiacinto, J; Ann Pharmacother 2000, V34, P600 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 2001:50494 CAPLUS
DN 134:95500
TI Combination of alkali metal salt of a bicarbonate and a proton pump inhibitor for the treatment of heartburn symptoms
IN Mandel, Kenneth G.; Johnson, Steven M.
PA Smithkline Beecham Corporation, USA
SO PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001003707	A1	20010118	WO 2000-US18896	20000712

W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CZ, DZ, EE, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, TZ, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-143407 P 19990712
AB The present invention is directed to the use of an alkali metal salt of a bicarbonate, preferably **sodium bicarbonate**, and an effective amt. of a proton pump inhibitor in combination for the treatment of heartburn symptoms. Efficacy of 10-20 mL of a compn. comprising 10-20 mEq acid neutralizing capacity of a bicarbonate and 10-20 mg **omeprazole** in the treatment of heartburn is reported.
RE.CNT 1
RE
(1) Phillips; US 5840737 A 1998 CAPLUS

L6 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 2000:583865 CAPLUS
DN 133:313464
TI Oral pharmacokinetics of **omeprazole** and lansoprazole after single and repeated doses as intact capsules or as suspensions in **sodium bicarbonate**
AU Sharma, V. K.; Peyton, B.; Spears, T.; Raufman, J.-P.; Howden, C. W.
CS Division of Gastroenterology, University of Arkansas for Medical Sciences, Little Rock, AR, USA
SO Aliment. Pharmacol. Ther. (2000), 14(7), 887-892
CODEN: APTHEN; ISSN: 0269-2813
PB Blackwell Science Ltd.
DT Journal
LA English
AB Background: **Omeprazole** and lansoprazole can be given in **sodium bicarbonate** as, resp., simplified **omeprazole** suspensions and simplified lansoprazole suspensions.

We previously found the antisecretory effect of **omeprazole** 20 mg given as simplified **omeprazole** suspensions to be lower than with intact capsules. However, lansoprazole 30 mg as a simplified lansoprazole suspension produced an effect similar to that seen with intact capsules. Aim: To evaluate the absorption of both drugs when given orally as capsules or as suspensions in **sodium bicarbonate**. Methods: In random order, we gave 5-day courses of **omeprazole** 20 mg and lansoprazole 30 mg as capsules and as suspensions in **sodium bicarbonate** to 12 healthy women. Serial blood samples were taken on days 1 and 5 of each course for pharmacokinetic measurements. Results: There was impairment of **omeprazole** absorption when given as simplified **omeprazole** suspension. Maximum plasma concn. and area under the concn./time curve were lower with simplified **omeprazole** suspension than with **omeprazole** capsules. No differences were found in lansoprazole absorption when simplified lansoprazole suspension was compared with its std. capsule formulation. The relative bioavailability of **omeprazole** from simplified **omeprazole** suspension compared to the capsule was 58.4% on day 5. The corresponding value for lansoprazole was 84.7%. Simplified **omeprazole** suspension 20 mg does not supply adequate **omeprazole** for systemic absorption. Lansoprazole absorption from simplified lansoprazole suspension is maintained.

RE.CNT 16
RE
(4) Flouvat, B; Br J Clin Pharmacol 1993, V36, P467 CAPLUS
(5) Howden, C; Br J Clin Pharmacol 1985, V20, P137 CAPLUS
(7) Howden, C; Eur J Clin Pharmacol 1984, V26, P641 CAPLUS
(11) Sharma, V; Aliment Pharm Ther 1999, V13, P1091 CAPLUS
(12) Sharma, V; Aliment Pharmacol Ther 1998, V12, P1171 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 2000:382805 CAPLUS
DN 133:22290
TI Stability of suspension formulations of lansoprazole and omeprazole stored in amber-colored plastic oral syringes
AU DiGiacinto, Jennifer L.; Olsen, Keith M.; Bergman, Kimberly L.; Hoie, Eric B.
CS Clinical Pharmacology, Department of Biomedical and Therapeutic Sciences, University of Illinois College of Medicine at Peoria, Peoria, IL, USA
SO Ann. Pharmacother. (2000), 34(5), 600-605
CODEN: APHRER; ISSN: 1060-0280
PB Harvey Whitney Books Co.
DT Journal
LA English
AB OBJECTIVE: To det. the stability of lansoprazole and **omeprazole** suspensions at ambient and refrigerated temps. using HPLC. DESIGN: The contents of lansoprazole and **omeprazole** capsules were suspended in sep. flasks contg. **sodium bicarbonate** 8.4% to concns. of 3 and 2 mg/mL, resp. The contents of each flask were drawn into 6 amber oral syringes, with one-half of the syringes stored at 22.degree. (ambient) and the other half at 4.degree.. Lansoprazole and **omeprazole** concns. were detd. by a stability-indicating HPLC assay at baseline and at 4, 8, 12, and 24 h, and on days 4, 7, 14, 21, 30, 45, and 60 after mixing. Both **omeprazole** and lansoprazole were considered stable if they retained .gtoreq.90% of the baseline drug concn. RESULTS: **Omeprazole** was stable for up to 14 days at 22.degree. and 45 days at 4.degree.. Lansoprazole was stable for 8 h at 22.degree. and for 14 days at 4.degree.. CONCLUSIONS: When compared with ambient or refrigerated storage conditions, **omeprazole** was stable for a longer duration than lansoprazole. Pharmacists may use these results to guide compounding and storage of proton-pump inhibitor suspensions.
RE.CNT 7
RE

(1) Bergman, K; Crit Care Med 1999, V27(suppl 1), PA171
(2) Karol, M; Clin Pharmacol Ther 1997, V61, P450 CAPLUS
(3) Katsuki, J; Pharmaceut Res 1996, V13, P611
(4) Phillips, J; Crit Care Med 1996, V24, P1793 MEDLINE
(7) Quercia, R; Am J Health Syst Pharm 1997, V54, P1833 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 2000:314671 CAPLUS
DN 132:326082
TI Omeprazole solutions containing bicarbonates
IN Phillips, Jeffrey O.
PA The Curators of the University of Missouri, USA
SO PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000026185	A2	20000511	WO 1999-US25592	19991029
	WO 2000026185	A3	20000810		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	AU 2000019071	A5	20000522	AU 2000-19071	19991029
PRAI	US 1998-183422	A	19981030		
	WO 1999-US25592	W	19991029		

AB A method of treating gastric acid disorders by administering to a patient a pharmaceutical compn. including a proton pump inhibitor in a pharmaceutically acceptable carrier including a bicarbonate salt of a Group IA metal where the administering step consists of a single dosage form without requiring further administering of the bicarbonate salt of the Group IA metal. A pharmaceutical compn. includes a dry formulation of a proton pump inhibitor in a pharmaceutically acceptable carrier including a bicarbonate salt of a Group IA metal. A pharmaceutical compn. for making a dry formulation of a proton pump inhibitor which includes a proton pump inhibitor and a bicarbonate salt of a Group IA metal in a form for convenient storage, whereby when the compn. is in a dry formulation which is suitable for enteral administration. Expts. were carried out in order to det. the effect of the **omeprazole** soln./suspension (**omeprazole/sodium bicarbonate** soln.) administration on the accuracy on subsequent pH measurements through a nasogastric tube. There were no statistically significantly latent effects of **omeprazole** soln./suspension administration (per nasogastric tube) on the accuracy of subsequent pH measurements obtained through the same nasogastric tube.

L6 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 2000:16046 CAPLUS
DN 132:44775
TI Comparison of 24-hour intragastric pH using four liquid formulations of lansoprazole and omeprazole
AU Sharma, Virender K.
CS Division of Gastroenterology, University of Arkansas for Medical Sciences, Little Rock, AR, 72205-7199, USA
SO Am. J. Health-Syst. Pharm. (1999), 56(Suppl. 4), S18-S21
CODEN: AHSPEK; ISSN: 1079-2082

PB American Society of Health-System Pharmacists
DT Journal
LA English
AB The results of previous studies evaluating the effect of four liq. formulations of proton-pump inhibitors on 24-h intragastric pH are described. Patients with a gastrostomy who were resident in a Veterans Affairs medical center or its affiliated nursing home were eligible for enrollment in one of four open-label studies in which each patient served as his own control. Patients underwent 24-h intragastric pH studies before and after receiving seven consecutive days of one of the following liq. formulations of a proton-pump inhibitor administered once daily: **omeprazole** granules 20 mg in orange juice, lansoprazole granules 30 mg in orange juice, simplified **omeprazole** suspension 20 mg, and simplified lansoprazole suspension 30 mg. The suspensions were prepd. with 10 mL of 8.4% **sodium bicarbonate** soln. Mean intragastric pH was measured, as was the time pH stayed above 3.0 and 4.0 during the 24-h period. Six to 14 patients participated in each study. The mean posttreatment pH was 4.9 .+-. 0.8, 4.7 .+-. 0.6, 4.1 .+-. 1.5, and 5.1 .+-. 1.1 for **omeprazole** granules in orange juice, lansoprazole granules in orange juice, simplified **omeprazole** suspension, and simplified lansoprazole suspension, resp. Both drugs in orange juice maintained pH above 4.0 longer than 14 h and above 3.0 for close to 20 h, which are the levels deemed optimal for healing erosive esophagitis and duodenal ulcers, resp. Simplified lansoprazole suspension maintained pH above those thresholds for the optimal times, but simplified **omeprazole** suspension did not (20 and 15 h above 3.0, 17 and 12 h above 4.0 for lansoprazole and **omeprazole**, resp.). Further development of liq. formulations of proton-pump inhibitors may have important implications for the treatment of acid-related diseases in patients, including children, who are unable to swallow capsules.
RE.CNT 19
RE
(11) Quercia, R; Am J Health-Syst Pharm 1997, V54, P1833 CAPLUS
(12) Sachs, G; Pharmacotherapy 1997, V17, P22 CAPLUS
(13) Sharma, V; Aliment Pharmacol Ther 1998, V12, P1171 CAPLUS
(14) Sharma, V; Aliment Pharmacol Ther 1999, V13, P1091 CAPLUS
(15) Sharma, V; Am J Gastroenterol 1997, V92, P848 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1999:647686 CAPLUS
DN 131:251986
TI Onset of action of antisecretory drugs: beneficial effects of a rapid increase in intragastric pH in acid reflux disease
AU Pipkin, G. A.; Mills, J. G.
CS Dept. of Gastroenterology, Glaxo Wellcome Research and Development, Uxbridge, UB11 1BU, UK
SO Scand. J. Gastroenterol., Suppl. (1999), 34(230), 3-8
CODEN: SJGSB8; ISSN: 0085-5928
PB Scandinavian University Press
DT Journal; General Review
LA English
AB A review with 26 refs. Background: The majority of patients who have symptomatic acid reflux disease will have a normal esophageal mucosa or will have only a mild degree of esophagitis. Treatment to relieve symptoms as they occur may be the best way to manage these patients, to whom the speed of symptom relief is of primary importance. The effervescent complex used to formulate effervescent ranitidine contains **sodium bicarbonate** and monosodium citrate, and has, therefore, an intrinsic acid-neutralizing capacity in addn. to the well-documented antisecretory activity. Methods: The results of studies of the effects of effervescent ranitidine tablets on intragastric pH and on the relief of heartburn are reviewed. Results and Conclusions: When compared with the std. ranitidine tablet, the effervescent formulation

results in a significantly greater and more rapid rise in intragastric pH in the hour immediately after dosing. Comparative studies show that intragastric pH is raised significantly faster after a single dose of effervescent ranitidine than after a famotidine rapid release tablet and after either an **omeprazole** or a lansoprazole capsule. In patients with acid reflux disease, effervescent ranitidine provides quicker relief of symptoms than a std. tablet and is preferred by most patients for this reason. The majority of patients (more than 80%) report symptom relief within 60 min of taking effervescent ranitidine.

RE.CNT 26
RE
(1) Arnestad, J; Aliment Pharmacol Ther 1997, V11, P355 CAPLUS
(7) Engzelius, J; Scand J Gastroenterol 1997, V32, P513 CAPLUS
(9) Hedenstrom, H; Aliment Pharmacol Ther 1997, V11, P1137 CAPLUS
(23) Smout, A; Aliment Pharmacol Ther 1995, V9, P51 CAPLUS
(25) Watson, R; Aliment Pharmacol Ther 1996, V10, P913 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1999:639980 CAPLUS
DN 131:341883
TI Effect of various salts on the stability of lansoprazole, omeprazole, and pantoprazole as determined by high-performance liquid chromatography
AU Ekpe, Anthony; Jacobsen, Thomas
CS Bayer Corporation, Morristown, NJ, 07962-1910, USA
SO Drug Dev. Ind. Pharm. (1999), 25(9), 1057-1065
CODEN: DDIPD8; ISSN: 0363-9045
PB Marcel Dekker, Inc.
DT Journal
LA English
AB A fast and reproducible reversed-phase HPLC method was developed for the simultaneous detn. of **omeprazole**, lansoprazole, and pantoprazole. The 3 compds. were monitored at 280 nm by using Zorbax Eclipse XDB C8 (5 .mu.m, 150 cm .times. 4.6 mm i.d.) and a mobile phase consisting of 700:300 phosphate buffer-MeCN with the pH adjusted to 7.0 with phosphoric acid. The method was used to study the effect of pH and various salts on the stability of the 3 compds. The pH rate profile curve showed that pantoprazole was the most stable compd. and lansoprazole the least stable. The stabilities of the compds. in salt solns. were in the following order: phosphate buffer < trisodium citrate < citrate buffer .ltoreq. acetate buffer < citric acid .ltoreq. monosodium citrate .ltoreq. calcium carbonate < **sodium bicarbonate** < sodium chloride < water. The rate of degrdn. had a direct relationship with the H+ and salt concn.

RE.CNT 11
RE
(1) Badwe, N; East Pharm 1996, V39, P127 CAPLUS
(2) Beil, W; Eur J Pharmacol 1992, V218, P265 CAPLUS
(4) Huber, R; J Chromatogr 1990, V529, P389 CAPLUS
(5) Keeling, D; Biochem Pharmacol 1985, V34, P2967 CAPLUS
(7) Meyyanathan, S; Indian Drugs 1997, V34, P403 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1998:774236 CAPLUS
DN 130:29232
TI Pharmaceuticals containing omeprazole solution/suspension for the treatment of gastric disorders
IN Phillips, Jeffrey Owen
PA The Curators of the University of Missouri, USA
SO U.S., 15 pp.
CODEN: USXXAM
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5840737	A	19981124	US 1996-680376	19960715

AB A pharmaceutical compn. includes an aq. soln./suspension of **omeprazole** or substituted benzimidazoles in a pharmaceutically acceptable carrier comprising a bicarbonate salt of a Group IA metal. A method for treating and/or preventing gastrointestinal conditions by administering to a patient an aq. soln./suspension of **omeprazole** or other benzimidazoles and derivs. is described wherein the administering step consists of a single dosage form without requiring further administering of the bicarbonate salt of the Group IA metal. Expts. were carried out in order to det. the effect of the **omeprazole** soln./suspension (**omeprazole/sodium bicarbonate** soln.) administration on the accuracy on subsequent pH measurements through a nasogastric tube. There were no statistically significantly latent effects of **omeprazole** soln./suspension administration (per nasogastric tube) on the accuracy of subsequent pH measurements obtained through the same nasogastric tube.

RE.CNT 34

RE

(1) Andersson; Br J Clin Pharmacol 1990, V29(5), P557 CAPLUS
(2) Andersson; Clin Pharmacokinet 1993, V24(1), P71 CAPLUS
(3) Andersson; Eur J Clin Pharmacol 1990, V39(2), P195 CAPLUS
(16) Debregeas; US 5385739 1995 CAPLUS
(21) Fellenius; Nature 1981, V290, P159 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1997:540849 CAPLUS
DN 127:225178
TI Stability of omeprazole in an extemporaneously prepared oral liquid
AU Quercia, Robert A.; Fan, Chengde; Liu, Xinchun; Chow, Moses S. S.
CS Drug Information Services, Total Parenteral Nutrition Service, Department of Pharmacy Services, Hartford Hospital, Hartford, CT, USA
SO Am. J. Health-Syst. Pharm. (1997), 54(16), 1833-1836
CODEN: AHSPEK; ISSN: 1079-2082
PB American Society of Health-System Pharmacists
DT Journal
LA English
AB The stability of **omeprazole** 2 mg/mL in an extemporaneously prepd. oral liq. was studied. The contents of 5 20-mg **omeprazole** capsules were mixed with 50 mL of 8.4% **sodium bicarbonate** soln. in a Luer-Lok syringe. The liqs. stored at 5.degree. and at -20.degree. did not change color during the study period, but the color of the liq. stored at 24.degree. changed from white to brown. There were no significant changes in the **omeprazole** concns. of the liqs. stored at 5 and -20.degree. during the study period, but the **omeprazole** concn. of the liq. stored at 24.degree. was <90% of the initial concn. on day 18. **Omeprazole** 2 mg/mL in an oral liq. compounded extemporaneously from capsules and **sodium bicarbonate** injection was stable for up to 14 days at 24.degree. and for up to 30 days at 5 and -20.degree..

L6 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1995:831502 CAPLUS
DN 123:275281
TI Treatment of Helicobacter pylori infection with **omeprazole** -amoxicillin combination therapy versus ranitidine/**sodium bicarbonate**-amoxicillin
AU Al-Assi, Mohammad T.; Cole, Rhonda A.; Karttunen, Tuomo J.; El-Zimaity, Hala; Genta, Robert M.; Graham, David Y.
CS Veterans Affairs Medical Cent., Baylor Coll. Med., Houston, TX, USA
SO Am. J. Gastroenterol. (1995), 90(9), 1411-14

CODEN: AJGAAR; ISSN: 0002-9270
DT Journal
LA English
AB Objectives: Simpler, effective therapies to treat Helicobacter pylori infection are greatly needed. **Omeprazole** co-therapy apparently enhances effectiveness of some antimicrobials. Our objective in this study was to det. whether the apparent addnl. benefit provided by **omeprazole** to amoxicillin therapy could be equaled by a high dose of ranitidine plus **sodium bicarbonate**. Methods: In a prospective randomized trial, we tested 1 g amoxicillin b.i.d. with either **omeprazole** 20 mg b.i.d., or high dose ranitidine (900 and 1800 mg) plus **sodium bicarbonate** tablets 650 t.i.d. (with meals) for 14 day. Results: Fifty-two patients with documented H. pylori infection and peptic ulcer completed therapy. The cure rate with **omeprazole** and amoxicillin was poor (46%), with the 95% confidence interval (CI) = 25-67%. Ranitidine plus **sodium bicarbonate** was also poor (30% cure) with the 95% CI = 21.5-59% (p > 0.57). Av. compliance was more than 92% for all three groups. Side effects were experienced in only two patients (stomatitis and mild diarrhea). Conclusions: Neither the **omeprazole** nor ranitidine plus bicarbonate plus amoxicillin therapies used here can be recommended for treatment of H. pylori infection.

L6 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1993:678792 CAPLUS
DN 119:278792
TI Enteric dosage forms of acid-labile antacids containing stabilizers
IN Ooishi, Naohiro; Shibata, Toshuki; Ikeda, Kuniki
PA Yoshitomi Pharmaceutical, Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05255088	A2	19931005	JP 1992-273736	19920917
PRAI	JP 1991-318337		19911105		

AB Enteric-coated prepns. of acid-labile benzimidazole-type antacids with improved dissoln. characteristics are prepd. by incorporating Al(OH)3.cntdot.NaHCO3 coppt. (I) in a core and/or undercoating layers. For example, granules contg. omeprazole 5.0, I 5.0, cryst. cellulose 4.0, low-substituted hydroxypropyl cellulose 4.0, hydroxypropyl cellulose 0.5, and mannitol 56.5 part were coated with (1) an undercoating compn. contg. hydroxypropyl Me cellulose 3.5, I 1.5, talc 0.5, and distd. water 64.5 parts, (2) an undercoating compn. contg. hydroxypropyl Me cellulose 3.5, TiO2 2.5, talc 0.5, and distd. water 64.5 parts, and (3) an enteric coating compn. contg. hydroxypropyl Me cellulose phthalate 10.7, cetanol 0.5, talc 1.8, methylene chloride 33.0, ethanol 86.0, and distd. water 33.0 parts.

L6 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2001 ACS
AN 1990:30369 CAPLUS
DN 112:30369
TI Pathogenesis of the earliest epithelial cell damage induced by mepirizole and cysteamine in the rat duodenum
AU Tanaka, Hironori; Takeuchi, Koji; Okabe, Susumu; Murakami, Motonobu
CS Dep. Appl. Pharmacol., Kyoto Pharm. Univ., Kyoto, 607, Japan
SO Jpn. J. Pharmacol. (1989), 51(4), 509-19
CODEN: JJPAAZ; ISSN: 0021-5198
DT Journal
LA English
AB Mepirizole (200 mg/kg) and cysteamine (100 mg/kg) induced epithelial cell damage in the proximal duodenum of rats within 30 min after s.c.

administration. The injury induced was severe 60 min later. Gastric acid secretion detd. in intact animals was stimulated by these agents 30 and 60 min later when the intraluminal pH of the duodenum was significantly decreased. Duodenal blood flow was significantly decreased beginning 5 min after administration up to 60 min. Oral treatment with **sodium bicarbonate** (300 mg/kg), cimetidine (100 mg/kg), **omeprazole** or NC-1300 (gastric proton pump inhibitors, 30 mg/kg) and 16,16-dimethyl PGE2 (10 .mu.g/kg) protected the epithelium from damage induced by the 2 duodenal ulcerogens. Epithelial cell damage in the duodenum in response to mepirizole and cysteamine appears to be related to the increased gastric acid secretion followed by lowered intraduodenal pH of the duodenum having decreased blood flow.

L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
AN 1999:639980 CAPLUS
DN 131:341883
TI Effect of various salts on the stability of lansoprazole, omeprazole, and pantoprazole as determined by high-performance liquid chromatography
AU Ekpe, Anthony; Jacobsen, Thomas
CS Bayer Corporation, Morristown, NJ, 07962-1910, USA
SO Drug Dev. Ind. Pharm. (1999), 25(9), 1057-1065
CODEN: DDIPD8; ISSN: 0363-9045
PB Marcel Dekker, Inc.
DT Journal
LA English
AB A fast and reproducible reversed-phase HPLC method was developed for the simultaneous detn. of **omeprazole**, lansoprazole, and pantoprazole. The 3 compds. were monitored at 280 nm by using Zorbax Eclipse XDB C8 (5 .mu.m, 150 cm .times. 4.6 mm i.d.) and a mobile phase consisting of 700:300 phosphate **buffer**-MeCN with the pH adjusted to 7.0 with phosphoric acid. The method was used to study the effect of pH and various salts on the stability of the 3 compds. The pH rate profile curve showed that pantoprazole was the most stable compd. and lansoprazole the least stable. The stabilities of the compds. in salt solns. were in the following order: phosphate **buffer** < trisodium citrate < citrate **buffer** .ltoreq. acetate **buffer** < citric acid .ltoreq. monosodium citrate .ltoreq. calcium carbonate < sodium **bicarbonate** < sodium chloride < water. The rate of degrdn. had a direct relationship with the H+ and salt concn.
RE.CNT 11
RE
(1) Badwe, N; East Pharm 1996, V39, P127 CAPLUS
(2) Beil, W; Eur J Pharmacol 1992, V218, P265 CAPLUS
(4) Huber, R; J Chromatogr 1990, V529, P389 CAPLUS
(5) Keeling, D; Biochem Pharmacol 1985, V34, P2967 CAPLUS
(7) Meyyanathan, S; Indian Drugs 1997, V34, P403 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d l2 abs fbib

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2000 ACS

AB Enteric-coated prepns. of acid-labile benzimidazole-type antacids with improved dissoln. characteristics are prepd. by incorporating Al(OH)3.cntdot.NaHCO3 coppt. (I) in a core and/or undercoating layers. For example, granules contg. omeprazole 5.0, I 5.0, cryst. cellulose 4.0, low-substituted hydroxypropyl cellulose 4.0, hydroxypropyl cellulose 0.5, and mannitol 56.5 part were coated with (1) an undercoating compn. contg. hydroxypropyl Me cellulose 3.5, I 1.5, talc 0.5, and distd. water 64.5 parts, (2) an undercoating compn. contg. hydroxypropyl Me cellulose 3.5, TiO2 2.5, talc 0.5, and distd. water 64.5 parts, and (3) an enteric coating compn. contg. hydroxypropyl Me cellulose phthalate 10.7, cetanol 0.5, talc 1.8, methylene chloride 33.0, ethanol 86.0, and distd. water 33.0 parts.

AN 1993:678792 CAPLUS

DN 119:278792

TI Enteric dosage forms of acid-labile antacids containing stabilizers

IN Ooishi, Naohiro; Shibata, Toshuki; Ikeda, Kuniki

PA Yoshitomi Pharmaceutical, Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

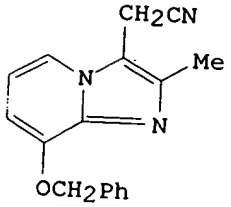
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05255088	A2	19931005	JP 1992-273736	19920917
				JP 1991-318337	19911105

AN 1995:826774 CAPLUS
DN 123:208914
TI Granular product or tablet containing an effervescent system
IN Gergely, Gerhard; Gergely, Thomas; Gergely, Irmgard; Gergely, Stefan
PA Austria
SO Eur. Pat. Appl., 15 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

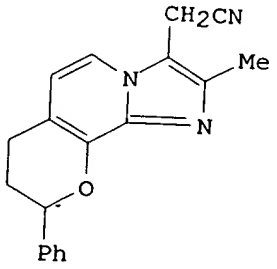
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 670160	A1	19950906	EP 1994-203112	19941026
	EP 670160	B1	19990714		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	AT 182073	E	19990715	AT 1994-203112	19941026
	ES 2136157	T3	19991116	ES 1994-203112	19941026
	CA 2183952	AA	19950908	CA 1995-2183952	19950223
	WO 9523594	A1	19950908	WO 1995-EP650	19950223
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA				
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9518114	A1	19950918	AU 1995-18114	19950223
	AU 681256	B2	19970821		
	CN 1142182	A	19970205	CN 1995-191882	19950223
	HU 75677	A2	19970528	HU 1996-2380	19950223
	BR 9506964	A	19970909	BR 1995-6964	19950223
	JP 09509669	T2	19970930	JP 1995-522671	19950223
	IL 112779	A1	19991130	IL 1995-112779	19950224
	ZA 9501652	A	19960828	ZA 1995-1652	19950228
	US 5792473	A	19980811	US 1996-620261	19960322
	NO 9603588	A	19961031	NO 1996-3588	19960828
	FI 9603385	A	19961030	FI 1996-3385	19960830
PRAI	DE 1994-4406641		19940301		
	CH 1994-873		19940323		
	EP 1994-203112		19941026		
	WO 1995-EP650		19950223		
	US 1996-620261		19960322		

AB Acid-sensitive pharmaceutically active substances, such as .beta.-carotene, cimetidine, ranitidine or cisapride, which has an acid-binding capacity below about 5meq, at 1.6-2.3 g, are incorporated into an effervescent grain. The effervescent grains are made from carrier crystals of at least one solid, edible org. acid, preferably citric acid, and are present as a granular product, sep. from the pharmaceutically active substance, and are coated with at least one layer of a water-sol. neutral substance which is effective for lowering the m.p. of the acid grains on their surface, such as, a water-sol. polymer, a higher alc., a carbohydrate and/or a hydrocolloid. A second coating contains at least a part of the alkali and/or alk. earth carbonate or bicarbonate provided for the total dosage. For example, an effervescent system was prepd. by (1) forming a soln. contg. water 36, sorbitol 36, citric acid 21, and NaHCO3 7 parts, (2) adding NaHCO3 52.5 and aspartame 4.4 parts to the soln., (3) distributing 1.9 parts of Na2CO3 to the mixt., and (4) binding 9.3 parts of Na2CO3 onto the grain surface. A granulated antifoaming agent was prepd. by mixing 7.7 parts sorbitol powder with 0.2 parts simethicone in butanone/acetone mixt. Then, a total **compn.** was prepd. by mixing cimetidine 20, sorbitol 21.1, the effervescent system 178.4, and the **anti-foaming agent** 7 parts. The final mixt. was pressed into tablets which contained cimetidine 0.2 g each.

AN 1991:74705 CAPLUS
DN 114:74705
TI Antiulcer agents. 5. Inhibition of gastric H+/K+-ATPase by substituted imidazo[1,2-a]pyridines and related analogs and its implication in modeling the high affinity potassium ion binding site of the gastric proton pump enzyme
AU Kaminski, James J.; Wallmark, Bjorn; Briving, Carin; Andersson, Britt Marie
CS Dep. Chem. Res., Schering-Plough Corp., Bloomfield, NJ, 07003, USA
SO J. Med. Chem. (1991), 34(2), 533-41
CODEN: JMCMAR; ISSN: 0022-2623
DT Journal
LA English
GI



I



II

AB A no. of substituted imidazo[1,2-a]pyridines and related analogs were selected for biochem. characterization in vitro against both the purified gastric proton pump enzyme, H+/K+-ATPase, and the intact gastric gland. The inhibitory activity in these two in vitro models was then examd. for correlation with the gastric antisecretory potency detd. for these compds. in vivo by using the histamine-stimulated Heidenhain pouch dog. Anal. of the biol. data suggested that the inhibitory activity of the analogs detd. in the two in vitro models is predictive of their in vivo gastric antisecretory activity following i.v., but not oral, administration. Furthermore, the good correlation obsd. between the in vitro and in vivo models suggests that these compds. are gastric **proton pump inhibitors** in vivo. A mol. modeling study of these compds. using the active analog approach has defined the mol. vol. which is shared by the active analogs, as well as the mol. vol. which is common to the inactive analogs. Graphical representation of the difference between these mol. vols. can be interpreted in terms of a hypothetical description of the pharmacophore by means of which Sch 28080 (I) and its analogs interact with the gastric proton pump enzyme, H+/K+-ATPase. Besides I, the analog II showed strong activity both as an antisecretory agent and as ATPase inhibitor.